

PROJECT DESCRIPTION

I. GENERAL

This project involves the modification of an existing strain pole Traffic Control Signal with street lighting and interconnect at the intersection of US 29 (Columbia Pike) and Fairland Road in Montgomery County. The existing Traffic Signal heads shall be upgraded to LED traffic signal heads. For Northbound and Southbound US 29 there will be an additional signal head installed for mainline traffic. US 29 (Columbia Pike) is assumed to run a north-south direction.

II. INTERSECTION OPERATION

- The intersection shall continue to operate in a NEMA six-phase, semi-actuated mode, with the US 29 (Columbia Pike) approaches running concurrently. Exclusive left turn phases shall remain in operation for both approaches of US 29 (Columbia Pike). Far side sampling stations shall remain in operation on both legs of US 29 (Columbia Pike) and both legs of Fairland Road at this intersection. A Red Light running camera shall continue to be provided for the southbound approach of US 29 (Columbia Pike). The Fairland Road approach shall continue to operate as a side street split phase..

- The existing full-traffic-actuated, eight-phase controller with all necessary equipment housed in a NEMA size "6" base-mounted cabinet shall be utilized at this intersection.

III. SPECIAL NOTES

- The Contractor shall be responsible for terminating all signal cables, to the appropriate terminals and shall properly label each cable.
- All controller cabinet wiring will be performed by Montgomery County Forces. Contact Kamal Hamud at (240) 777-8761 seventy-two hours in advance of intended work.
- All underground and overhead utilities shown on these plans are schematic only and may not be complete. The Contractor shall be responsible for notifying Miss Utility prior to construction so that all utilities may be located in the field. If the Contractor perceives that a conflict between the utilities and the traffic signal will occur, the Contractor shall notify the Project Engineer immediately so that the conflict may be resolved.

The contact persons for District #3 (Montgomery County) are as follows:

Mr. Jeff Wentz
Assistant District Engineer - Traffic
Phone: (301) 513-7358

Mr. Wayne Mowdy
Assistant District Engineer - Maintenance
Phone: (301) 513-7304

Mr. Augie Rebish
District Engineer - Utility
Phone: (301) 513-7350

Mr. Richard L. Daff, Sr.
Chief, Traffic Operations Division
Phone: (410) 787-7630

Mr. Keith Lord
Montgomery County Signal Shop
(301) 674-8965

Mr. Sonny Bailey
Chief Sign Shop
410-787-7676

EQUIPMENT LIST

A. EQUIPMENT TO BE SUPPLIED BY S.H.A.		
ITEM NO.	DESCRIPTION	QUANTITY
9570	Sheet aluminum signs to consist of: (ground mount)	16 SF
	R5-1 "Advance Right Turn Arrow" sign, (21"x15").	2 EA
	R6-1(R) "ONE WAY" sign (36"x12")	2 EA
	R6-1(L) "ONE WAY" sign (36"x12")	2 EA
9571	Sheet aluminum signs to consist of: (pole mount)	12 SF
	R6-1(R) "ONE WAY" sign (36"x12")	2 EA
	R6-1(L) "ONE WAY" sign (36"x12")	2 EA
	Sheet aluminum signs to consist of: (span wire mount)	22.5 SF
9572	R3-5R "RIGHT TURN ONLY" sign, (30" x 36")	1 EA
	R3-5L "LEFT TURN ONLY" sign, (30" x 36")	2 EA

EQUIPMENT LIST (CONT.)

B. EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR

ITEM NO.	DESCRIPTION	QUANTITY
1001	Maintenance of traffic	1 EA
1002	Removal of existing permanent pavement line markings	240 L.F.
5003	24" white heat applied permanent preformed thermoplastic pavement marking.	240 L.F.
8001	12" LED signal head section.	52 EA
8016	Remove and dispose of material & equipment per assignment.	1 EA
8032	Wood sign supports up to 4"x6".	32 L.F.
8045	Install ground mounted sign	16 S.F.
8046	Install overhead sign	34.5 S.F.
8057	Electrical cable - 5 conductor (No. 14 AWG).	915 L.F.
8058	Electrical cable - 7 conductor (No. 14 AWG).	630 L.F.

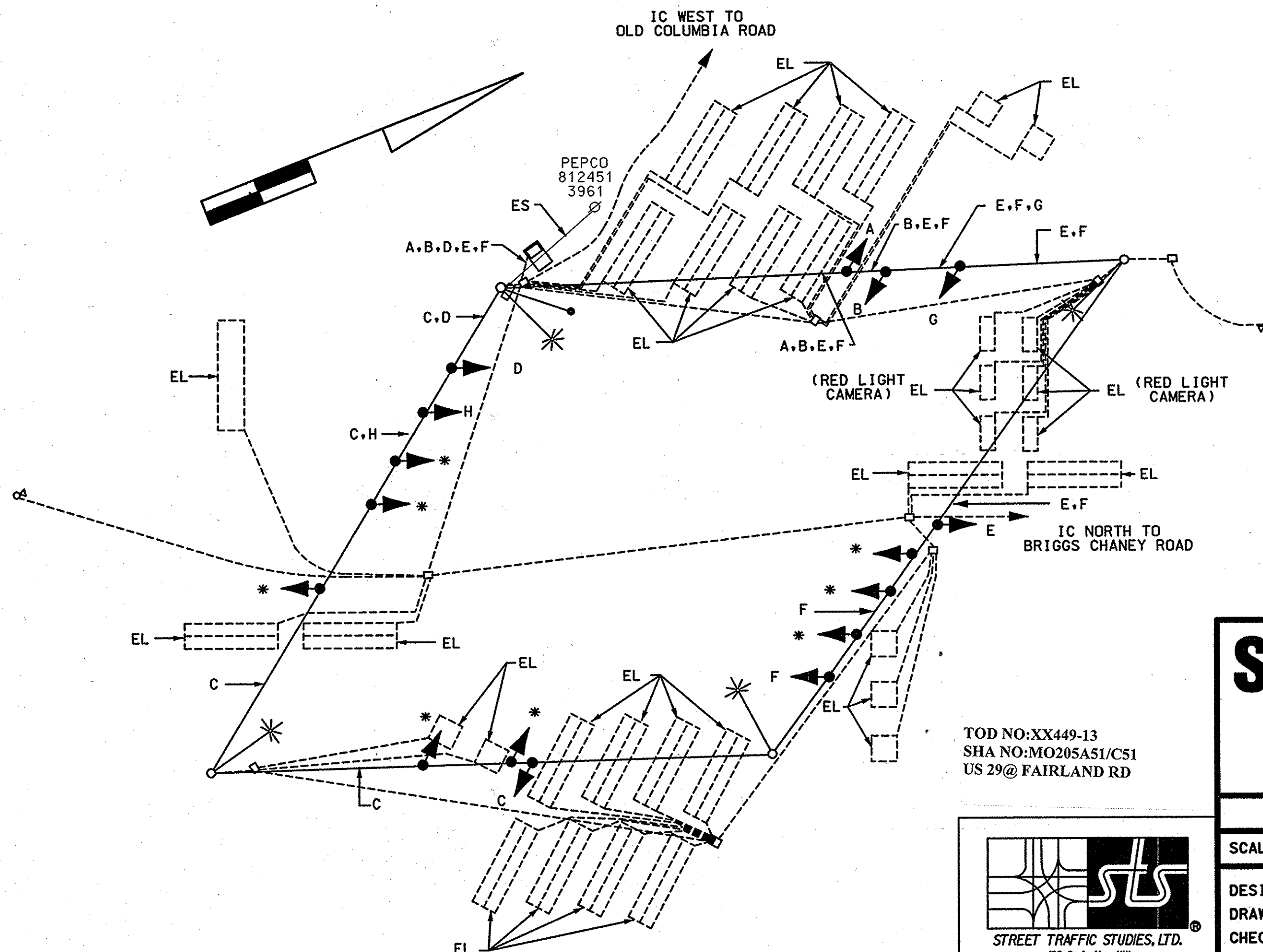
C. EQUIPMENT TO BE REMOVED

All removed signal materials are to become property of the contractor.

PHASE CHART

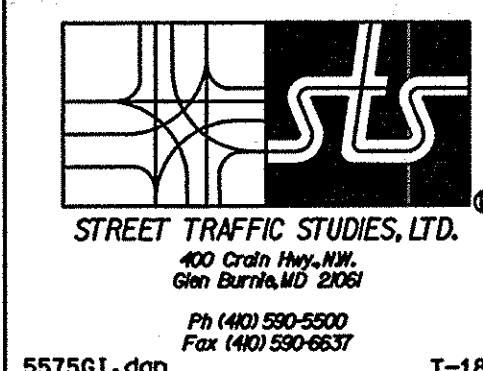
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	←G←	←G←	R	R	R	←G←	←G←	R	R	R	R	R	R	R	R	R
PHASE 1 & 5	←G←	←G←	R	R	R	←G←	←G←	R	R	R	R	R	R	R	R	R
CHANGES TO PHASES 1 & 6, 2 & 5 OR 2 & 6	←G←	←G←	R	R	R	←G←	←G←	R	R	R	R	R	R	R	R	R
PHASE 1 & 6	←G←	←G←	G	G	G	←R←	←R←	R	R	R	R	R	R	R	R	R
1 & 6 CHANGE	←Y←	←Y←	G	G	G	←R←	←R←	R	R	R	R	R	R	R	R	R
PHASE 2 & 5	←R←	←R←	R	R	R	←G←	←G←	G	G	G	R	R	R	R	R	R
2 & 5 CHANGE	←R←	←R←	R	R	R	←Y←	←Y←	G	G	G	R	R	R	R	R	R
PHASE 2 & 6	←R←	←R←	G	G	G	←R←	←R←	G	G	G	R	R	R	R	R	R
2 & 6 CHANGE	←R←	←R←	Y	Y	Y	←R←	←R←	Y	Y	Y	R	R	R	R	R	R
PHASE 3	←R←	←R←	R	R	R	←R←	←R←	R	R	R	←G←	←G←	G	R	R	R
3 CHANGE	←R←	←R←	R	R	R	←R←	←R←	R	R	R	Y	Y	Y	R	R	R
PHASE 4	←R←	←R←	R	R	R	←R←	←R←	R	R	R	R	R	R	←G←	←G←	G
4 CHANGE	←R←	←R←	R	R	R	←R←	←R←	R	R	R	R	R	R	Y	Y	Y
FLASHING OPERATION	FL/←R←	FL/←R←	FL/Y	FL/Y	FL/Y	FL/←R←	FL/←R←	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R

WIRING DIAGRAM



WIRING KEY	
A	7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
B	5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
C	EL-LOOP WIRE (NO. 14 A.W.G.) EXISTING
D	* - USE EXISTING CABLE
E	ES- EXISTING OVERHEAD SERVICE TO BE MAINTAINED BY PEPCO

TOD NO:XX449-13
SHA NO:MO205A51/C51
US 29@ FAIRLAND RD



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PLOTTED: 8/24/2004
FILE: 8/24/2004

STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION	
US 29 (COLUMBIA PIKE) AND FAIRLAND ROAD FAIRLAND, MARYLAND	
TRAFFIC SIGNAL PLAN	
SCALE NONE	DATE 9/5/08 CONTRACT NO. XX4495185
DESIGNED BY JWA	COUNTY MONTGOMERY
DRAWN BY RC	LOGMILE 15002007.68
CHECKED BY	TIMS NO. J061
F.A.P. NO.	TOD NO.
TS NO. 466D	DRAWING NO. 2 OF 2 SHEET NO. OF